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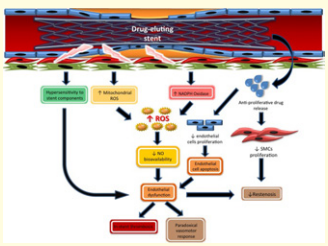
Inside This Issue

STATE-OF-THE-ART PAPER



CLINICAL RESEARCH

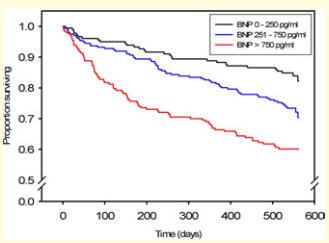
(continued on page A-30)

VALVE DISEASE

The combination of aortic stenosis (AS) and aortic regurgitation (AR) may increase transvalvular flow interfering with echocardiographic indices of valve function and thus prognosis. Zilberszac and colleagues reviewed records from 71 consecutive asymptomatic patients with at least moderate AS in combination with at least moderate AR and preserved left ventricular function. There were no cardiac deaths during 9 years of follow-up. One-half of patients with a peak aortic jetvelocity (AV-Vel) between 3 and 3.9 m/s at baseline had surgery AVR surgery by 6 years, compared to all patients with an AV-Vel ≥5 m/s. These results imply that AV-Vel, which reflects both stenosis and regurgitant severity, provides an objective and easily assessable predictive parameter.

Editorial Comment: Benjamin Byrd, Michael Baker, p. 1496

HEART FAILURE



van Veldhuisen and colleagues sought to determine the prognostic value of brain natriuretic peptide (BNP) in patients with heart failure with preserved ejection fraction (HFPEF), in comparison to heart failure patients with reduced left ventricular ejection fraction (HFREF). Over 600 patients who had been hospitalized for heart failure (HF) were followed. BNP levels were significantly higher in patients with reduced (<40%) left ventricular ejection fraction (LVEF). BNP was a strong predictor of outcomes, but ejection fraction was not. For similar levels of BNP, the prognosis was equivalent for HFPEF patients and those with HFREF. These results suggest that BNP offers robust and similar prognostic information for patients with congestive HF regardless of the LVEF.

Editorial Comment: James L. Januzzi, Jr., p. 1507

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HEART FAILURE

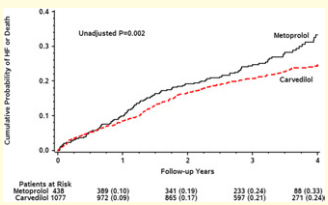
Lifetime Risk for Developing HF 1510

Mark D. Huffman, Jarett D. Berry, Hongyan Ning, Alan R. Dyer, Daniel B. Garside, Xuan Cai, Martha L. Daviglus, Donald M. Lloyd-Jones

Huffman and colleagues noticed that prior estimates of lifetime risk for developing heart failure (HF) did not include sufficient numbers of black patients. Data was combined from 3 large cohort studies to estimate the lifetime risks for developing HF, with death free of HF as the competing event. At age 45 years, lifetime risks for HF through age 95 years were 30% to 42% in white men, 20% to 29% in black men, 32% to 39% in white women, and 24% to 46% in black women. The authors noticed higher competing mortality risks from other diseases or accidents may have lowered the risk in black men. These are among the first data to compare lifetime risks for HF between blacks and whites.

HEART FAILURE

Carvedilol Associated With Improved Outcomes Compared to Metoprolol in the MADIT-CRT Patients 1518



Martin H. Ruwald, Anne-Christine H. Ruwald, Christian Jons, Jeffrey Alexis, Scott McNitt, Wojciech Zareba, Arthur J. Moss

Ruwald and colleagues reviewed data from all patients receiving either metoprolol or carvedilol in the MADIT-CRT study, which randomized New York Heart Association functional class I to II patients with standard implantable cardioverter-defibrillators (ICD) indications, to either ICD or cardiac resynchronization therapy (CRT). Treatment with carvedilol was associated with a significantly decreased risk of hospitalization for heart failure or death when compared to metoprolol (hazard ratio [HR]: 0.70). This reduction in risk was further attenuated in the subgroup of CRT-D patients (HR: 0.62) and CRT-D patients with left bundle branch block (HR: 0.51). Although this was not a randomized trial, the results strongly suggest that carvedilol offers more benefits for these types of patients than metoprolol does.

(*continued on page A-32*)

HEART RHYTHM DISORDERS

CARDIAC IMAGING